

Think Positive Act Smart: A Strength Based Approach to Understanding How Students Learn

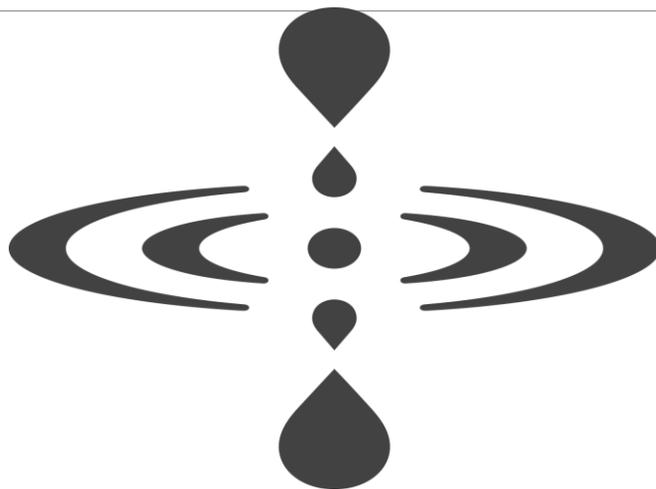
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Mindful Moment: Be. Here. Now.



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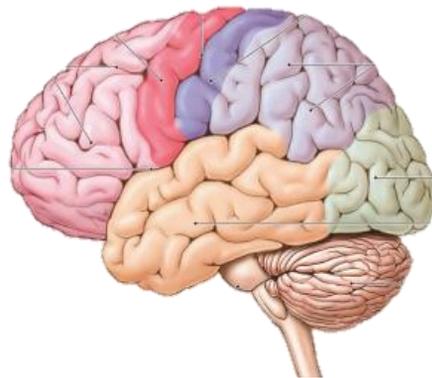
Mindful Moment: Be. Here. Now.

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Please Stand if...

You are skilled at...

- **Planning**
- **Attention**
- **Successive**
- **Simultaneous**



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“Stop and Think” Partners



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Our Backgrounds and Intentions

 <p>Secondary & Elementary Classroom Teacher</p>	 <p>Special Education</p>		 <p>Musician</p>	 <p>How are you feeling today? School Psych</p>
 <p>Talent Development</p>	 <p>Multicultural Learners</p>	<p>Kathleen's Intention: To open the heart, nourish the mind, and inspire the spirits of learners and teachers.</p>	 <p>Professor of Psych</p>	 <p>IQ test Test your IQ... How smart are you? next Test Author</p>
 <p>Juvenile Delinquents</p>	 <p>Teacher of Teachers teacher Researcher</p>		<p>Jack's Intention: To help psychologists and educators know their students' learning and emotional strengths and needs in order to help them succeed in school and life.</p>	

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Assessment Tools for Psychologists and Educators

WELCOME TO JACKNAGLIERI.COM



This site was created to provide tools and resources for both psychologists and educators alike.

Jack A. Naglieri, PhD, is a Research Professor at the University of Virginia, Senior Research Scientist at the Devereux Center for Resilient Children, and Emeritus Professor of Psychology at George Mason University. With J.P. Das, he is well known for the PASS theory of intelligence and its application using the Cognitive Assessment System and Cognitive Assessment System Second Edition.

WHAT'S NEW?

Today's Handout



Download today's handout from recent presentations.

PASS Case Studies



Case studies that illustrate ways to identify different processing disorders and interventions that can make a difference.

10-Minute Solutions



Short published papers that describe applications of PASS theory to identify disabilities such as Dyslexia.

CAS2 Speed/Fluency Scale



New FREE Speed/Fluency Scale for the CAS2.

Article Library



Videos



Video library of interviews and webinars on

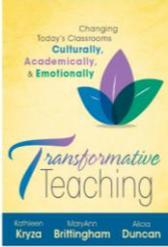


Kathleen Kryza's
InfiniteHorizons
www.kathleenkryza.com

Passionately Committed to Transforming Classrooms Culturally, Emotionally and Academically

"(Mindsets + Skillsets) Relevance = Results!"

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Books

Be sure to check out Kathleen's newest book, *Transformative Teaching: Changing Classrooms Culturally, Academically and Emotionally*. Kryza, Brittingham, Duncan

"So much to learn, so little time – motivated to refocus."

- Anita, Philadelphia, NY

About Kathleen

For over 30 years, Kathleen Kryza has inspired thousands of children and educators around the globe through her dynamic presentations and writing. Kathleen is passionately dedicated to helping classrooms, schools, and the world, be a better place for children.



To learn more about Kathleen, CLICK HERE.

Workshops/Coaching

Top reasons to bring Kathleen to your school, district or conference:

- Participate in high quality, dynamic workshops that blend current, brain-targeted research with practical and doable.

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Teaching from a Neurocognitive Perspective

Using Mindsets and Metacognition for Student Success

July 9-13, 2018
Santa Barbara, CA

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Wedding the Art and Science of Teaching: Theory Into Reality



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Married May 17, 2014

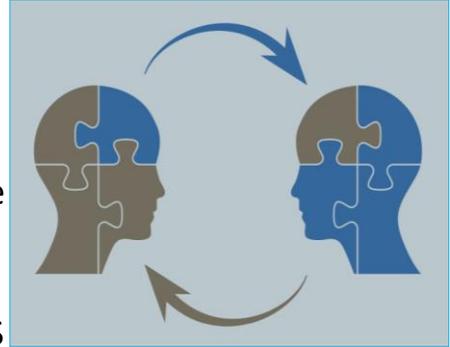


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The BIG Picture

- Our Strength Based approach to understanding how students learn stems from our desire to define learning abilities associated with different areas of the brain
- Once we focus on the THINKING BRAIN we move beyond traditional IQ with its reliance on knowledge and history of bias
- Then we can truly understand HOW CHILDREN LEARN and use their STRENGTHS to build success in school and in life.



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Outline for Today

Think Smart: IQ Reimagined

Learning & Planning

Learning & Attention

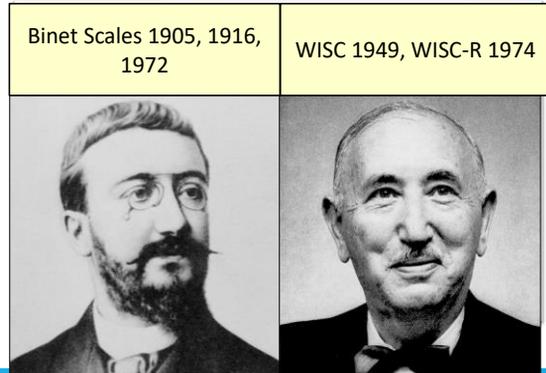
Learning & Successive

Learning & Simultaneous

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Traditional IQ and Achievement Tests

- In 1975 I was working as a school psychologist in NY
- I noticed that parts of the WISC we were administering was VERY similar to parts of the achievement tests
- The WISC and Binet tests had
 - Information, word similarities, vocabulary and arithmetic questions
 - So did my achievement test!
- HOW DOES THAT MAKE SENSE?
- WHY THIS PROBLEM?



Evolution of IQ <http://www.jacknaglieri.com/cas2.html>



E. L. Thorndike



A. Otis



R. Woodworth

Handbook of Intelligence
 Evolutionary Theory, Historical Perspective, and Current Concepts
 Sam Goldstein, Dana Princiotta, Jack A. Naglieri, Editors
 Springer

Hundred Years of Intelligence Testing: Moving from Traditional IQ to Second-Generation Intelligence Tests
 Jack A. Naglieri
"Do not go where the path may lead, go instead where there is no path and leave a trail!"
 Ralph Waldo Emerson

Context
 April 6, 1917, in a room in the Training School in Vincennes, Newberry, on May 26, the committee considered many types of group tests and several that Arthur S. Otis developed while working on his doctorate under Lewis Terman at Stanford University. The goal was to find tests that could efficiently evaluate a wide variety of areas, be easy to administer in the group format, and be easy to score. By June 9, 1917, the materials were ready for an initial trial. Men who had some educational background and could speak English were administered the verbal and quantitative (Alpha) tests and those that could not read the newspaper or speak English were given the Beta tests (initially described as nonverbal). The Alpha tests were designed to measure general information (e.g., how many months are there in a year, how many feet are in a mile, etc.).

- A group of psychologists met at Harvard in April of 1917 to construct an ability test to help the US military evaluate recruits (WWI) for responsible positions
- Their goal was to develop a workable set of tests

US Army Alpha & Beta tests

➤ Army Alpha

- Synonym- Antonym
- Disarranged Sentences
- Number Series
- Arithmetic Problems
- Analogies
- Information

Verbal &
Quantitative

➤ Army Beta

- Maze
- Cube Imitation
- Cube Construction
- Digit Symbol
- Pictorial Completion
- Geometrical Construction

Nonverbal

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The First IQ TEST: Alpha (Verbal)

- tobacco** 1. Bull Durham is the name of
fruit 2. The Mackintosh Red is a kind of
typewriter 3. The Oliver is a
Mogul 4. A passenger locomotive type is the
engineers 5. Stone & Webster are well know
Superbas 6. The Brooklyn Nationals are called
fabric 7. Pongee is a
corn 8. Country Gentleman is a kind of
Mckinley 9. The President during the Spanish War was
cigarette 10. Fatima is a make of

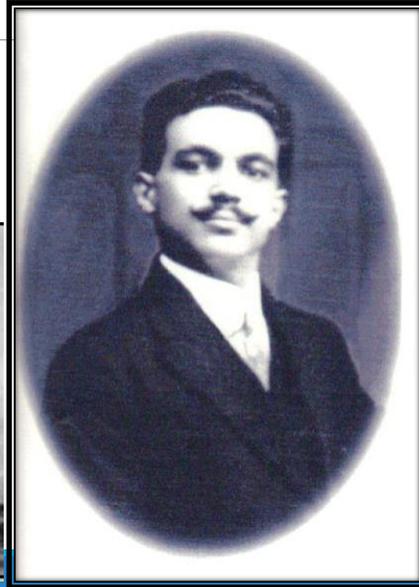
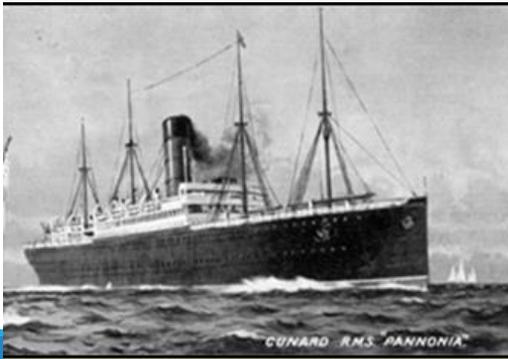
From: Psychological Examining the United States Army (Yerkes, 1921, p. 213)

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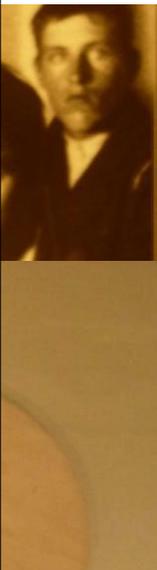
Antonino Mirenda - 1906

WHY BETA TEST?



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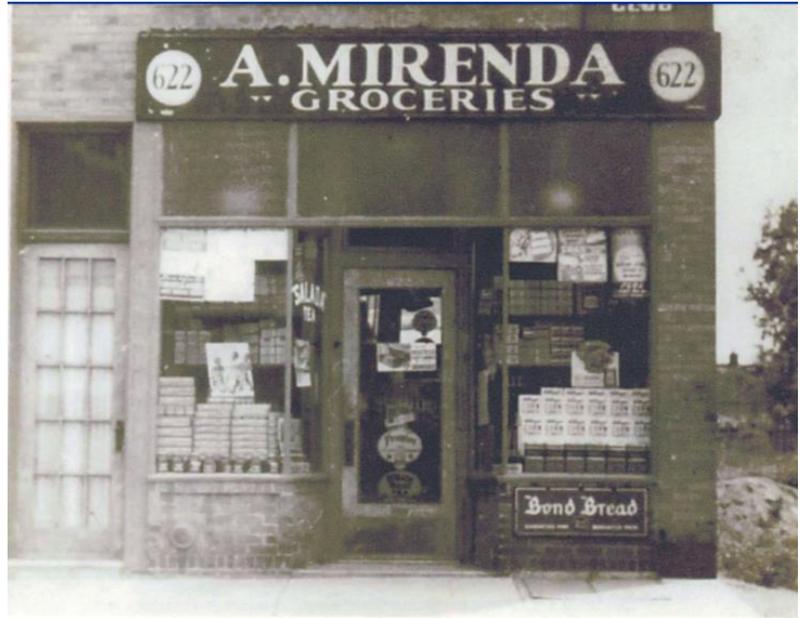
Antonino Mirenda - 1907



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Antonino Mirenda Groceries

622 Ave X,
Brooklyn, NY



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Nonverbal Tests (Yoakum & Yerkes)

➤ WHY have Army Alpha and Beta?

METHODS AND RESULTS

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Why Beta?

Men who fail in alpha are sent to beta in order that injustice by reason of relative unfamiliarity with English may be avoided. Men who fail in beta are referred for individual examination by means of what may appear to be the most suitable and altogether appropriate procedure among the varied methods available. This reference for careful individual examination is yet another attempt to avoid injustice either by reason of linguistic handicap or accidents incident to group examining.

- Note there is no mention of measuring verbal and nonverbal intelligences – **it was a social justice issue.**

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Talk about someone you know who's intelligence could have been inaccurately assessed with a test that requires verbal skills?

WALK AND TALK: Movement and Talk helps cement learning

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Intelligence Tests Should Measure *Thinking* not Knowing

- What does the student have to **know** to complete a task?
 - *This is dependent on educational opportunity (e.g., Vocabulary, Arithmetic, phonological skills, etc.)*



How does the student have to **think** to complete a task?

This is dependent on the brain's neurocognitive processes

I must follow a sequence



Teachers need to consider both the Thinking & Knowing needed to complete any assignment

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Intelligence tests Used Today...

➤ IQ tests that are confounded by knowledge

■ WISC-V

- Verbal Comprehension: Vocabulary, Similarities, Information & Comprehension
- Fluid Reasoning: Figure Weights, Picture Concepts, Arithmetic

■ WJ-IV and Bateria-IV

- Comprehension Knowledge: Vocabulary & General Information
- Fluid Reasoning: Number Series & Concept Formation
- Auditory Processing: Phonological Processing

■ K-ABC-II

- Knowledge / GC: Riddles, Expressive Vocabulary, Verbal Knowledge

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**WE CAN DO
BETTER**

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* Not Alejandro

Case of Alejandro (Aged 7-0 Grade 1)

REASON FOR REFERRAL

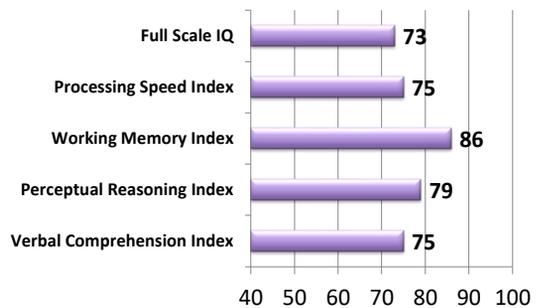
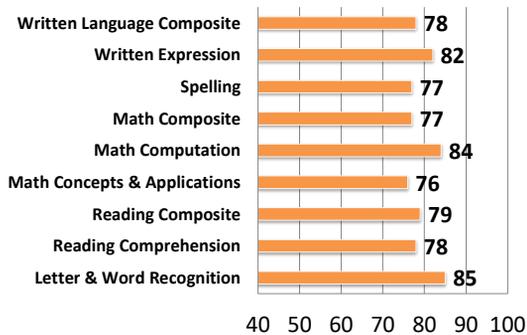
Academic:

- Could not identify letters/sounds
- October 2013: Could only count to 39
- All ACCESS scores of 1

Behavior:

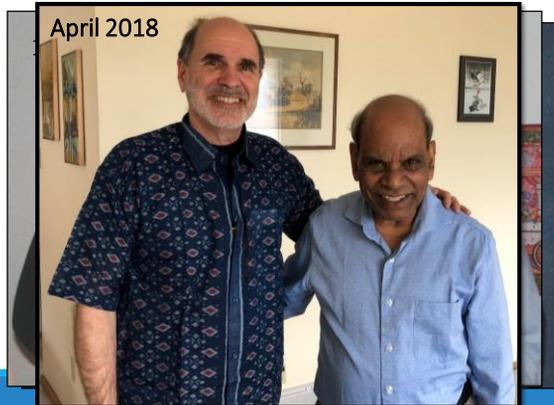
- Difficulty following directions
- Attention concerns
- Refusal/defiance

What do These Scores Suggest?



Thinking as Neurocognitive Functioning

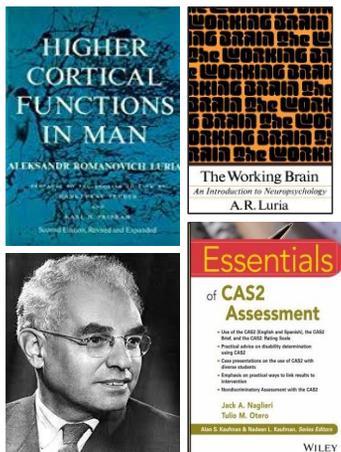
- In Das and Naglieri (February 11, 1984) proposed that THINKING (i.e. intelligence) was better described as neurocognitive processes including measurement of Executive Function
- Our definition of THINKING (intelligence) includes Planning, Attention, Simultaneous, and Successive (PASS) neurocognitive processes



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PASS Neurocognitive Theory

- Planning = THINKING ABOUT HOW YOU DO WHAT YOU DECIDE TO DO
 - Attention = BEING ALERT AND RESISTING DISTRACTIONS
 - Simultaneous = GETTING THE BIG PICTURE
 - Successive = FOLLOWING A SEQUENCE
- PASS** = 'basic psychological processes'



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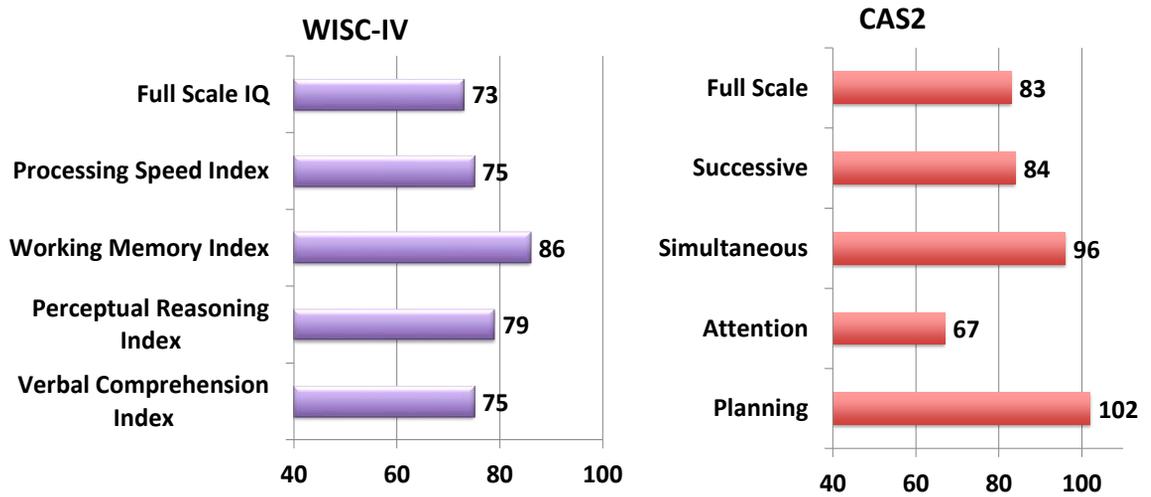


Back to Alejandro

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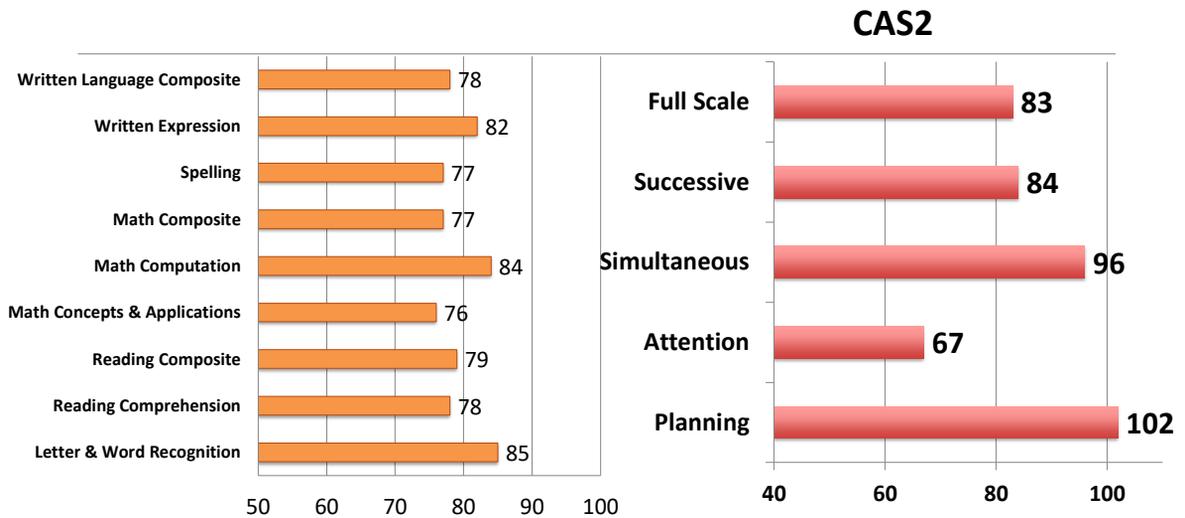
Assessing Brain Function Paints a Different Picture: PASS Scores from CAS2



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Alejandro's Results



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Think and Talk



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- What did you learn about Alejandro from his PASS scores?
- Did this change your mind about him as a learner? How?

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Alejandro and PASS (by Dr. Otero)

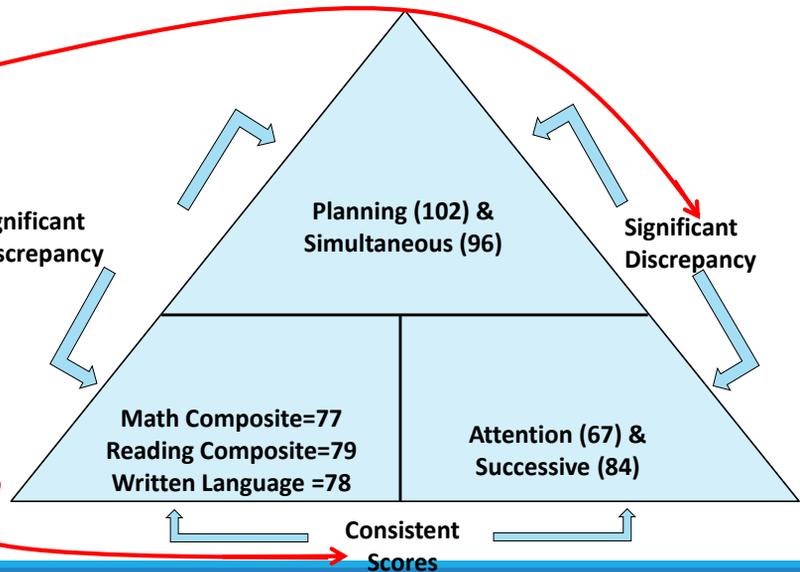
- ▶ Alejandro is not a slow learner.
- ▶ He has good scores in basic psychological processes:
 - ▶ Simultaneous = 96 and Planning = 102
- ▶ He has a “disorder in one or more of the basic psychological processes”
 - Attention = 67 and Successive = 84
- ▶ And he has academic failure which suggests a specific learning disability not low IQ

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Discrepancy Consistency Method for SLD

- Discrepancy between high and low processing scores
- Discrepancy between high processing and low achievement
- Consistency between low processing and low achievement



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Our Children Deserve Better...

- We owe it to our students to identify patterns of strengths and weaknesses based on *Brain Function*, and not confounded by knowledge.
- We must *Think Positive and Act Smart* to make more informed decisions about how to best respond to student's needs.



-Kryza, Naglieri, 2019

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Intentional and Transparent

- Intentional: **YOU** know why you're doing what you're doing.
- Transparent - **THEY** know why you're doing what you're doing.



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Why Intentional and Transparent?

- The human brain responds to knowing **WHY**.
- Teach **WITH** your students, not **at** them.
- Teaching kids **HOW** to learn is as important as teaching them **what** to learn.



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From Understanding to Intervention: PASS Exploration Protocol

- Help the child understand his/her PASS strengths and areas of challenges (**Intentional & Transparent**)
- Encourage Motivation & Persistence (**Mindsets**)
- Support in developing strategies for approaching tasks (**Skill Sets**)
 - Student/Peer or Teacher generated
 - Model and Scaffold as needed
- Encourage independence and self efficacy
 - (**Metacognition/Self Assessment**)

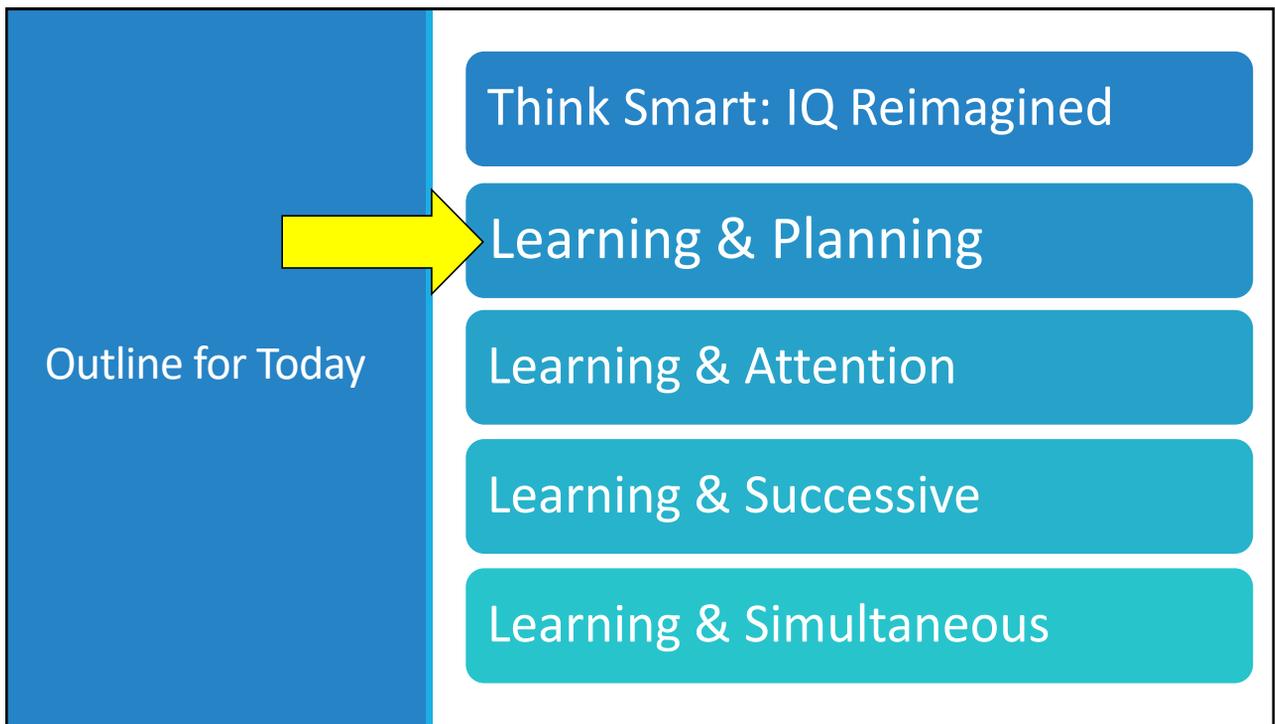
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Thinking not Knowing & Equitable Tests

- PASS scores are the same when given in English and Spanish to bilingual students
- PASS scores for Black and White students are very similar
- PASS scores for US and Italian students are virtually identical
- Measuring Thinking is more appropriate across groups and I suggest PASS tests will work very well for Maori students as well

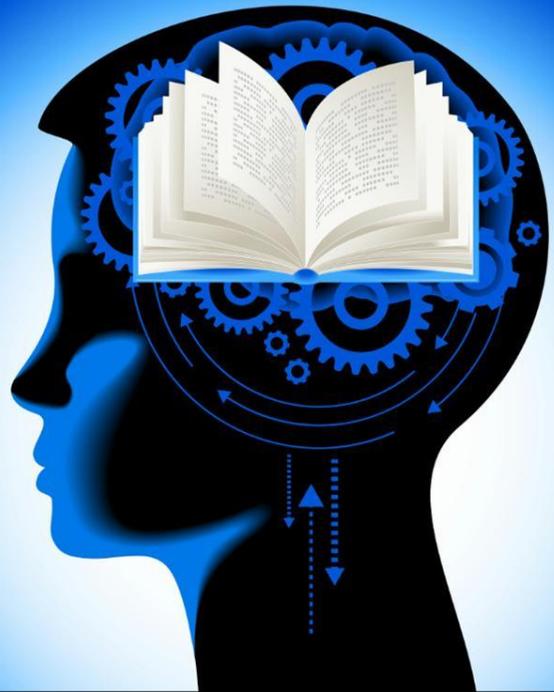
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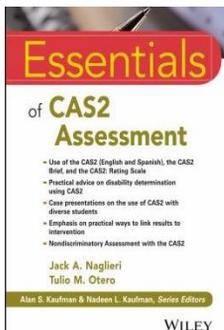
Brain Function and Learning

- Each function defined
- A Case Study
- Intervention Protocol
- Take away Strategies



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PASS: Let's Lock It In!



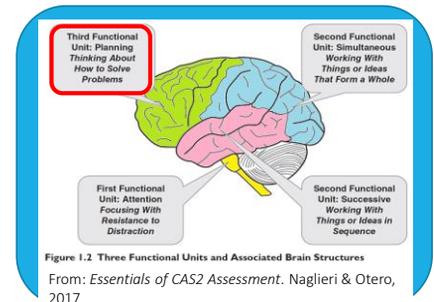
- Planning = HOW YOU DO WHAT YOU DECIDE TO DO
- Attention = BEING ALERT AND RESISTING DISTRACTIONS
- Simultaneous = GETTING THE BIG PICTURE
- Successive = FOLLOWING A SEQUENCE

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PASS Theory: Planning = EF

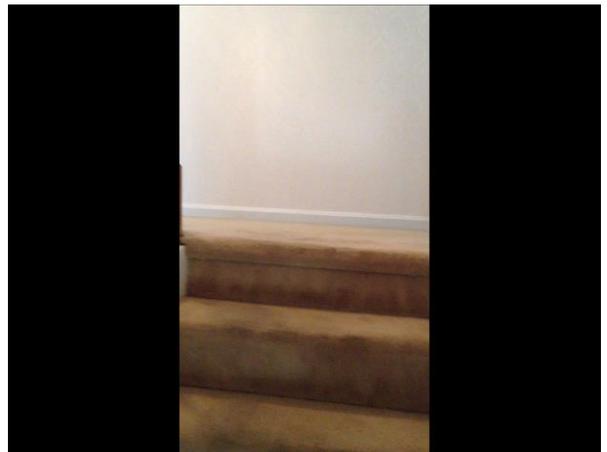
- Planning is a term used to describe a way of thinking that is similar to metacognition and executive function
- Planning is needed for setting goals, making decisions, predicting the outcome of one's own and others actions, impulse control, strategy use and retrieval of knowledge
- Planning helps us make decisions about how to solve any kind of a problem from academics to social situations and life in general



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A 13 month old's Plan At 19 months Planning & Knowledge



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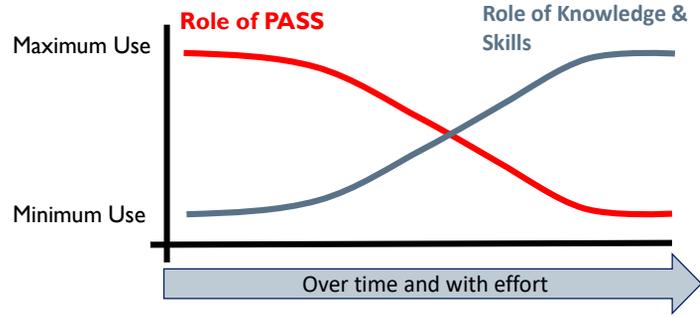
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Planning Learning Curves

Learning depends upon many factors especially PASS

At first, PASS plays a major role in learning

When a new task is learned and practiced it becomes a skill and execution requires less thinking



Note: A skill is the ability to do something well with minimal effort (thinking)

CAS2: Rating Scale Planning

Directions for Items 1–10. These questions ask how well the child or adolescent decides how to do things to achieve a goal. They also ask how well a child or adolescent thinks before acting and avoids impulsivity. Please rate how well the child or adolescent creates plans and strategies to solve problems.

During the past month, how often did the child or adolescent . . .

	Never	Rarely	Sometimes	Frequently	Always
1. produce a well-written sentence or a story?	0	1	2	3	4
2. evaluate his or her own actions?	0	1	2	3	4
3. produce several ways to solve a problem?	0	1	2	3	4
4. have many ideas about how to do things?	0	1	2	3	4
5. have a good idea about how to complete a task?	0	1	2	3	4
6. solve a problem with a new solution when the old one did not work?	0	1	2	3	4
7. use information from many sources when doing work?	0	1	2	3	4
8. effectively solve new problems?	0	1	2	3	4
9. have well-described goals?	0	1	2	3	4
10. consider new ways to finish a task?	0	1	2	3	4

— + — + — + — + — =

Planning Raw Score

A Cognitive Strategy Instruction to Improve Math Calculation for Children With ADHD and LD: A Randomized Controlled Study

PASS Planning Research Revisited

Jackie S. Iseman¹ and Jack A. Naglieri¹

Abstract

The authors examined the effectiveness of cognitive strategy instruction based on PASS (Planning, Attention, Simultaneous, Successive) given by special education teachers to students with ADHD randomly assigned by classroom. Students in the experimental group were exposed to a brief cognitive strategy instruction for 10 days, which was designed to encourage development and application of effective planning for mathematical computation, whereas the comparison group received standard math instruction. Standardized tests of cognitive processes and math achievement were given at pretest. All students completed math worksheets throughout the experimental phase. Standardized achievement tests (*Woodcock-Johnson Tests of Achievement, Third Edition*, Math Fluency and *Wechsler Individualized Achievement Test, Second Edition*, Numerical Operations) were administered pre- and postintervention, and Math Fluency was also administered at 1 year follow-up. Large pre-post effect sizes were found for students in the experimental group but not the comparison group on math worksheets (0.85 and 0.26), Math Fluency (1.17 and 0.09), and Numerical Operations (0.40 and -0.14, respectively). At 1 year follow-up, the experimental group continued to outperform the comparison group. These findings suggest that students with ADHD evidenced greater improvement in math worksheets, far transfer to standardized tests of math (which measured the skill of generalizing learned strategies to other similar tasks), and continued advantage 1 year later when provided the PASS-based cognitive strategy instruction.



Instructional Sessions

- Math lessons were organized into “instructional sessions” delivered over 13 consecutive days
- Each instructional session was 30-40 minutes
- Each instructional session was comprised of three segments as shown below

10 minutes	10-20 minutes	10 minutes
10 minute math worksheet	Planning Facilitation or Normal Instruction	10 minute math worksheet

Experimental Group

19 worksheets with Planning Facilitation

Vs.

Control Group

19 worksheets with Normal Instruction

Planning (Metacognitive) Strategy Instruction

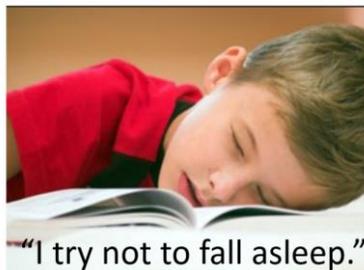
- ▶ Teachers *facilitated* discussions to help students become more self-reflective about use of strategies
- ▶ Teachers asked questions like:
 - What was your goal?
 - Where did you start the worksheet?
 - What strategies did you use?
 - How did the strategy help you reach your goal?
 - What will you do again next time?
 - What other strategies will you use next time?

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Student Plans

- “My goal was to do all of the easy problems on every page first, then do the others.”
- “I do the problems I know, then I check my work.”
- “I do them (the algebra) by figuring out what I can put in for X to make the problem work.”
- “I did all the problems in the brain-dead zone first.”



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Results

- The experimental group did better than the control on math taken from the curriculum AND on standardized math tests
- A year later the experimental group still outperformed the control group.



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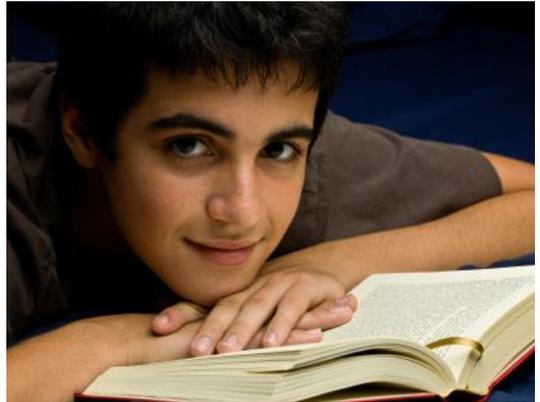
•**Discuss:** What are the implications of this research on our work as psychologists, teachers, speech pathologists, etc

WALK AND TALK: Movement and Talk helps cement learning

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Rocky's Profile

- After two years of special reading instruction he was still working two grade levels below his peers - having difficulty in reading, writing, and math
- Rocky was having difficulty with
 - decoding, phonics, and sight word vocabulary; math problems, addition, fact families, and math problem solving and focusing and paying attention."
 - PASS Scores help us understand WHY he is doing poorly AND what his STRENGTHS are.



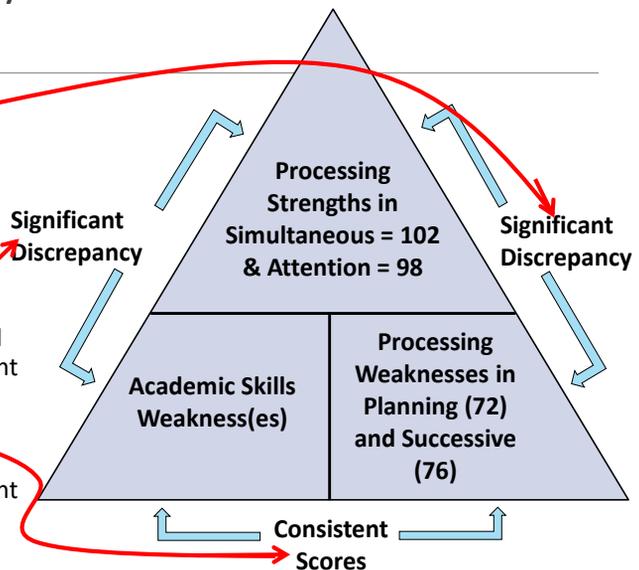
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Discrepancy Consistency Method for SLD

Rocky is Strong In Simultaneous and Attention but Weak in Planning and Successive processing

- Discrepancy between high and low processing scores
- Discrepancy between high processing and low achievement
- Consistency between low processing and low achievement



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Kathleen's Intervention Plan for Rocky



- **Be Intentional and Transparent**
 - Explain his PASS scores to him
- **Build on Student Strengths**
 - Help him use his *Attention and Simultaneous Strengths* to support his learning challenges with Planning and Successive.
- **Develop Effective Skill Sets** to remediate his weaker skills
 - Offer and encourage the use of strategies that can improve his planning and successive processing.
- **Encourage a Growth Mindset** and Self Efficacy

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Take Away Strategies

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Winning Formula to Think Smart! PLANNING

$$\begin{array}{c}
 \text{Mindsets} \\
 + \\
 \text{Skill Sets} \\
 \hline
 = \text{RESULTS!}
 \end{array}$$



PG. 12

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Mindsets + Skillsets = Results

➤ Mindsets

- Willingness to grow or acceptance of limitations
- Willingness to put forth the effort needed to develop skills sets and utilize knowledge



➤ Skillsets

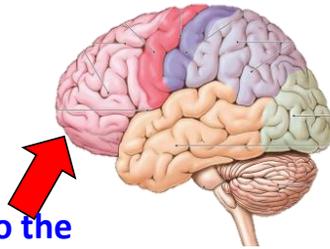
- Being so fluent with knowledge that it is easily accessed and used
- Using strategies, paying attention, seeing the big picture, and working with information that is in a sequence

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Mindsets + Skillsets = Results

- Mindsets & Skillsets include
 - Brain-based concepts such as
 - Executive Function
 - Metacognition
 - Self-Regulation
- **These concepts are all closely related to the FRONTAL LOBES of the brain, what A. R. Luria described as PLANNING.**



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Neuroplasticity

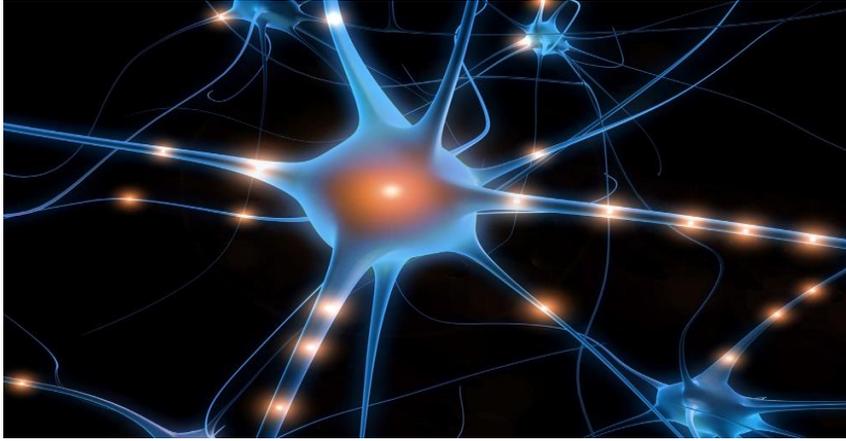
(Goldberg, 2009)

- We used to think that brain growth essentially stopped when a person reached adulthood but now we know that is **WRONG !!**
- The brain undergoes various forms of natural reorganization well in adulthood and possibly throughout the life span (pg. 234)
- Effects of cognitive activity may actually change the brain by strengthening neural networks and improve information-processing capacity
- Ongoing research continues to clarify what scientists are finding

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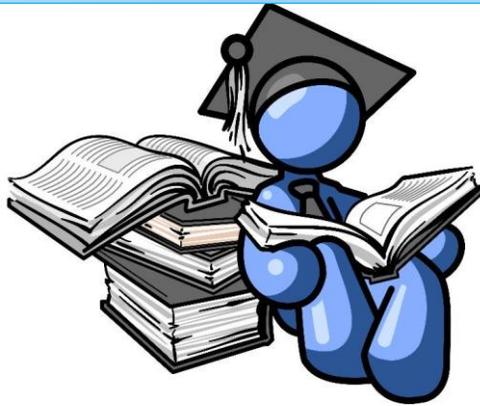
From neuroscience we know that...

Neurons that fire together Wire together!



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Metacognitive Skill Sets

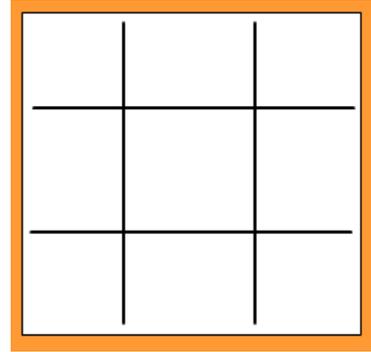


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Teach Intentionally and Transparently About Metacognition or Strategic Thinking and Planning



- Metacognition is *thinking about your thinking*, having a plan of action for what to do when you don't know.



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Planning Facilitation = Metacognition (Read “How People Learn” for more...)

- **METACOGNITION** consists of three basic elements:
 - **BEFORE:**
 - *Developing a plan of action*
 - **DURING**
 - *Maintaining / monitoring the plan*
 - **AFTER**
 - *Evaluating the plan*
- The more students are aware of their thinking processes as they learn, the more they can control such matters as goals, dispositions, and attention. *Self-awareness promotes self-regulation*



64

Think
SMART!

Stop and THINK

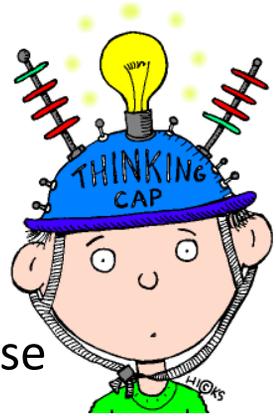
Make a PLAN

Take Action!

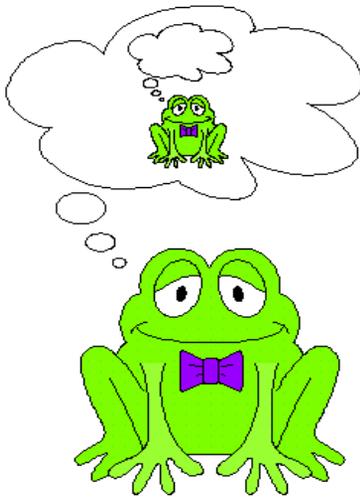
Revise/Reflect/Revise

Try Again (or) TaDa!

Developed by Naglieri and Kryza, 2014



65



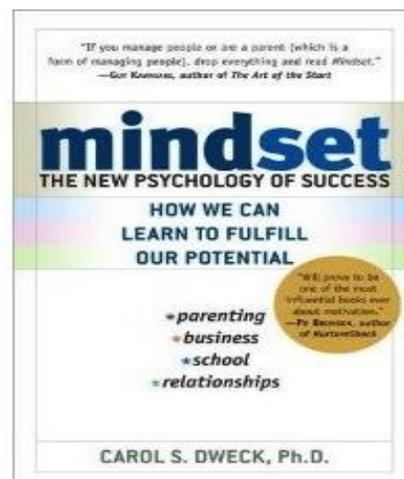
Based on what you've learned about metacognition, are you Thinking Smart about your exercise or eating habits?

66



67

Carol Dweck, Growth Mindsets Stanford University



68

Dweck's findings: Two Mindsets



Fixed mindset:

- ❖ Intelligence and talent -fixed
- ❖ Innate talent creates success
- ❖ Effort will not make a difference
- ❖ You either get it or you don't
- ❖ **LOOK GOOD AT ALL COSTS**



Growth mindset:

- ❖ Intelligence can be developed
- ❖ Brains and talent are just the starting point
- ❖ Enjoy effort and process of learning
- ❖ You can always grow and learn
- ❖ **LEARN AT ALL COSTS**

Pg. 12-14

69

“Think Smart” by Shaping Your Mindset

How you interpret challenges, setbacks, and criticism is a choice. You can choose to ramp up your strategies and effort, stretch yourself, and expand your abilities. It's up to you!

When people drop the good/bad, right/wrong thinking, they are better able to learn useful strategies that help with self control

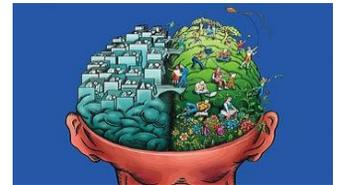
KRYZA AND NAGLIERI

70

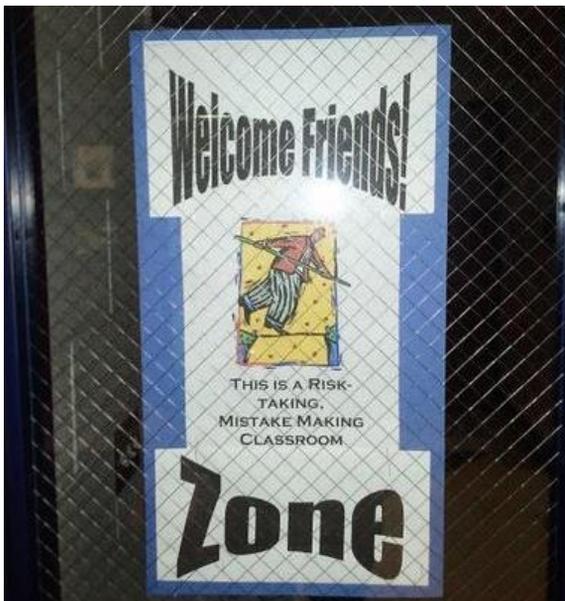
Mindset Scholars Network, 2019

Lower-achieving students who attended schools in which the peer climate supported the pursuit of challenging work had the largest improvements in grades after receiving the mindset program

In these schools, the intervention increased core course GPA by 0.15 points and STEM course GPA by 0.17 points and reduced the likelihood of D or F averages in core courses by 8 percentage points among lower-achieving students.



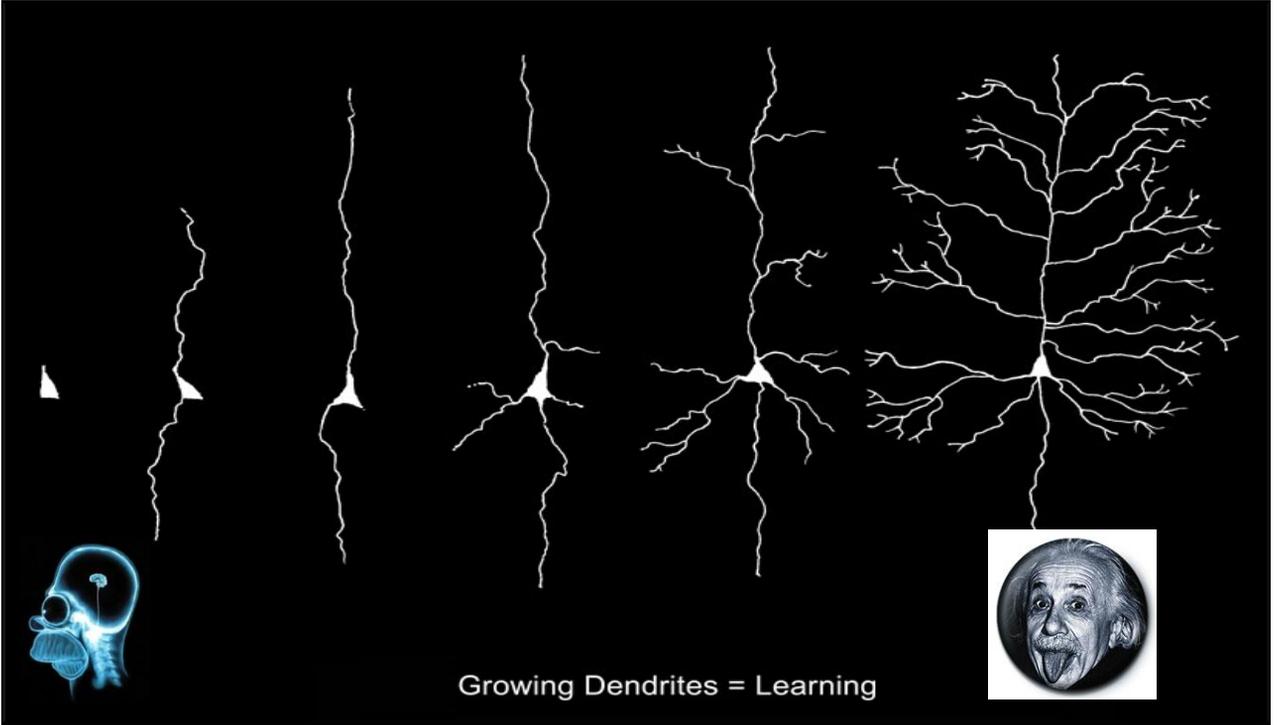
71



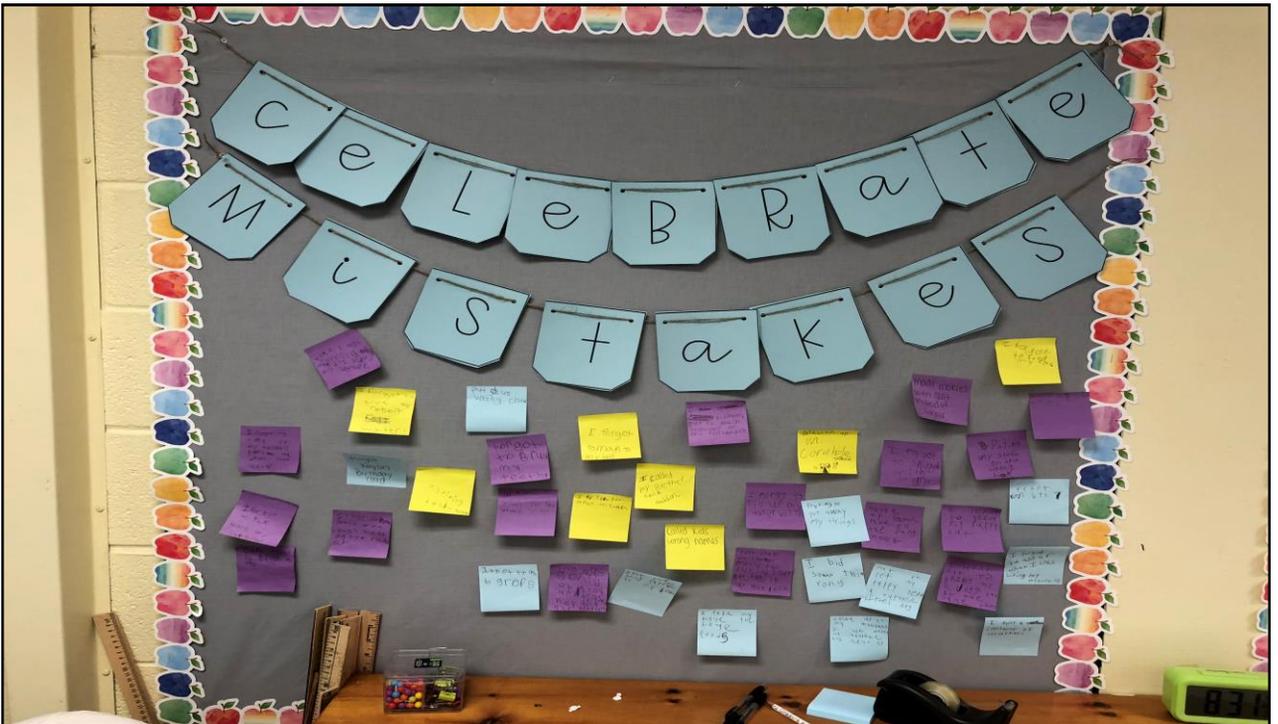
Encourage
(Safe) Risk
Taking and
Mistake- Making

72

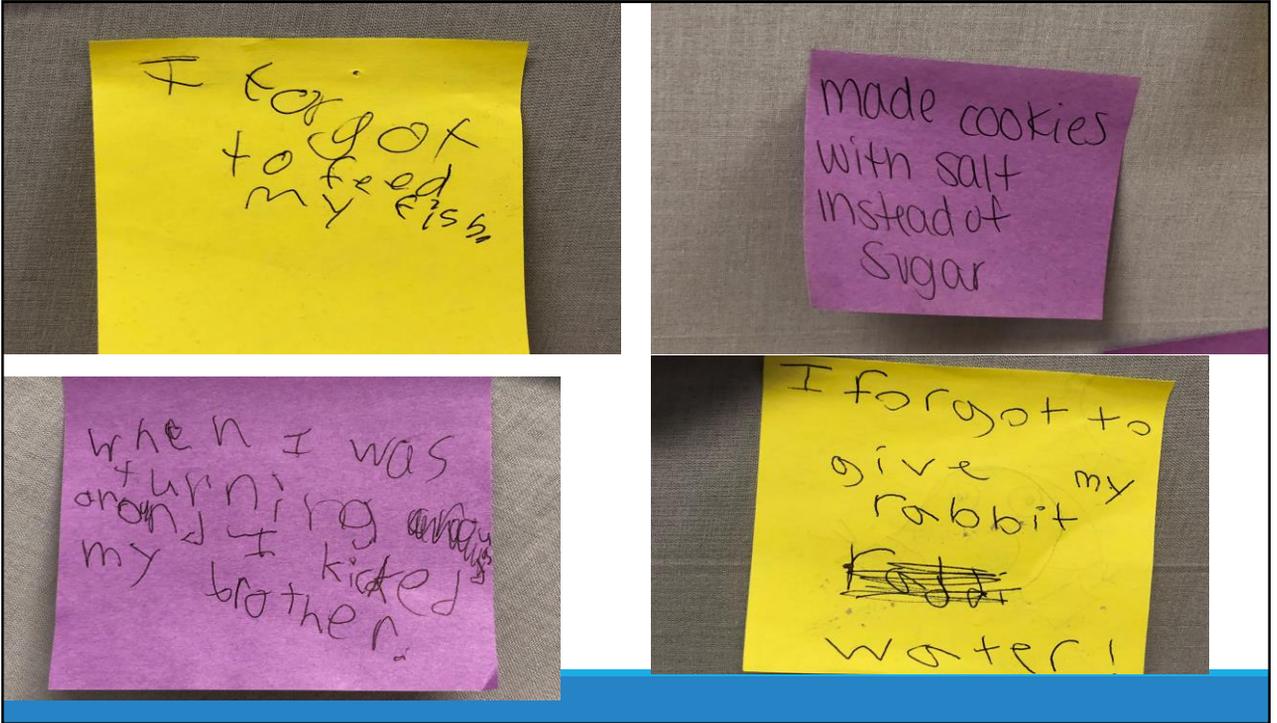
72



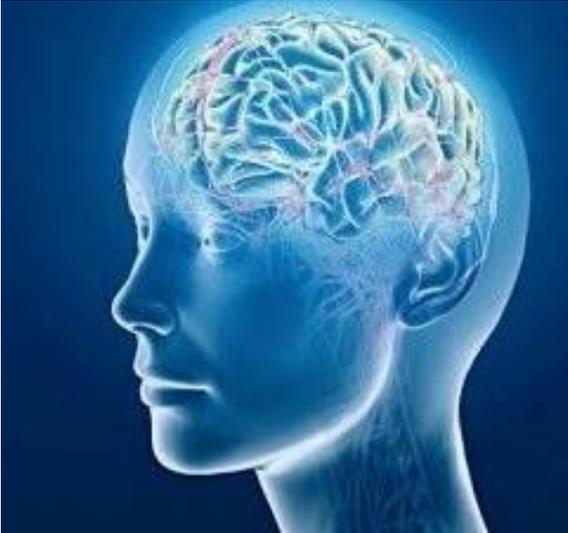
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75

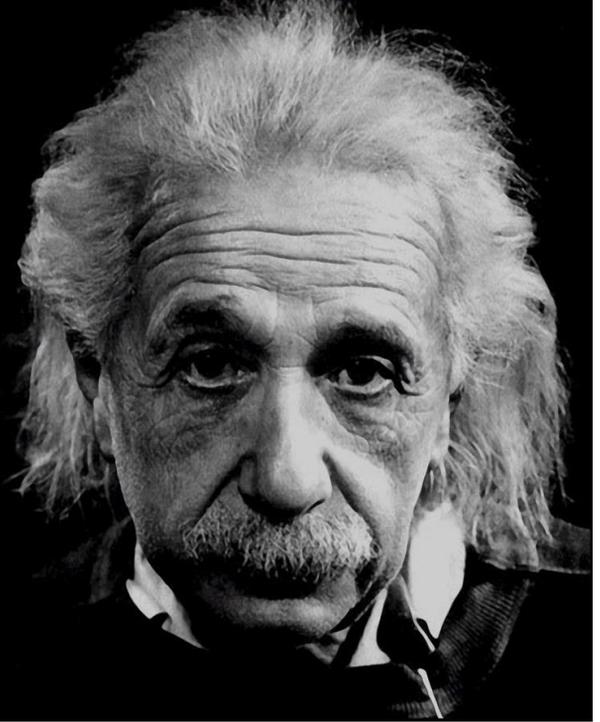


LET'S TAKE A
BRAIN BREAK
or Syn-Nap

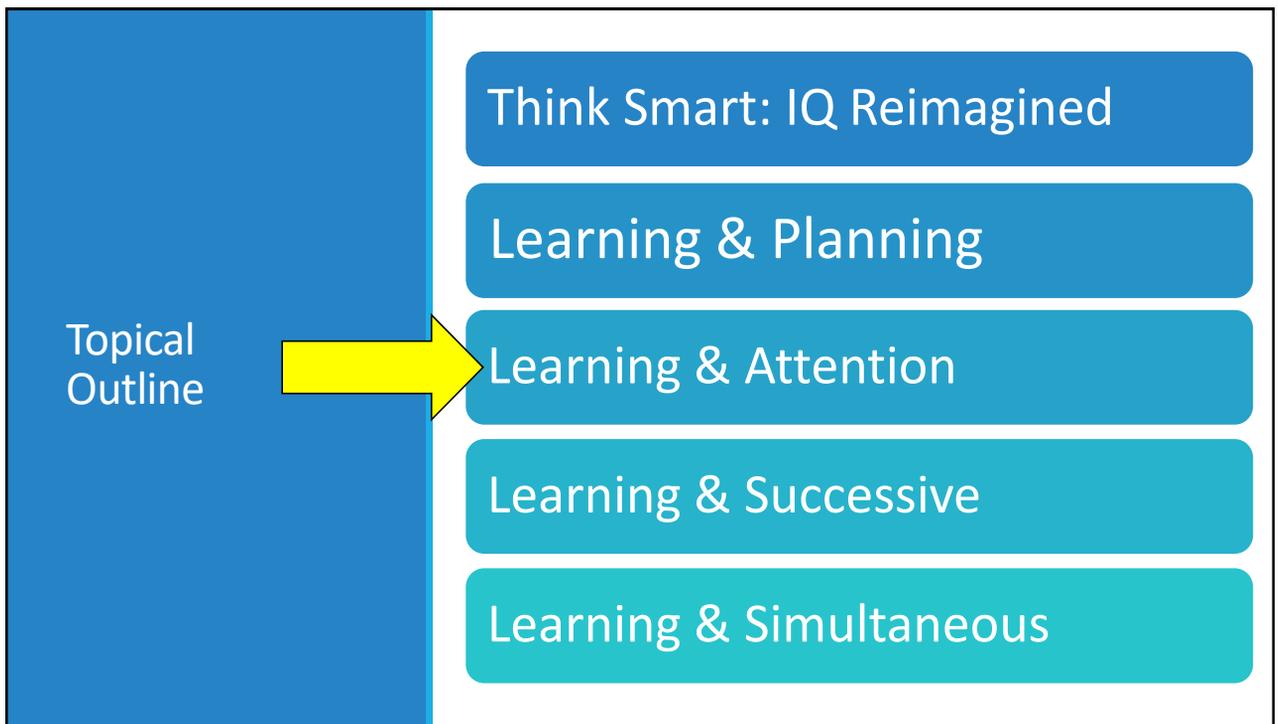
76

76

“I am neither clever nor especially gifted. I am only very, very curious.”
-Albert Einstein



77

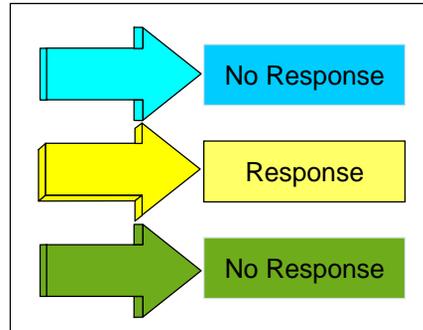


78

PASS Theory

- ▶ **Attention** is a basic psychological process we use to selectively attend to some stimuli and ignores others
 - focused cognitive activity
 - selective attention
 - resistance to distraction

RED
BLUE



79

79

CAS2 Expressive Attention

- ▶ Say the color not the word!

RED	BLUE	GREEN	YELLOW
YELLOW	GREEN	RED	BLUE
RED	YELLOW	YELLOW	GREEN
BLUE	GREEN	RED	BLUE
GREEN	YELLOW	RED	YELLOW

80

80

READY ?

81

81

B **L** **U** **E** **!**

82

Expressive Attention - Italiano

ROSSO	BLU	VERDE	GIALLO
GIALLO	VERDE	ROSSO	BLU
ROSSO	GIALLO	GIALLO	VERDE
BLU	VERDE	ROSSO	ROSSO
VERDE	GIALLO	BLU	GIALLO

83

83

CAS2: Rating Scale Attention

Directions for Items 21–30. These questions ask how well the child or adolescent pays attention and resists distractions. The questions also ask about how well someone attends to one thing at a time. Please rate how well the child or adolescent pays attention.

During the past month, how often did the child or adolescent . . .

	Never	Rarely	Sometimes	Frequently	Always
21. work well in a noisy area?	0	1	2	3	4
22. stay with one task long enough to complete it?	0	1	2	3	4
23. not allow the actions or conversations of others to interrupt his or her work?	0	1	2	3	4
24. stay on task easily?	0	1	2	3	4
25. concentrate on a task until it was done?	0	1	2	3	4
26. listen carefully?	0	1	2	3	4
27. work without getting distracted?	0	1	2	3	4
28. have a good attention span?	0	1	2	3	4
29. listen to instructions or directions without getting off task?	0	1	2	3	4
30. pay attention in class?	0	1	2	3	4

— + — + — + — + — =
Attention Raw Score

84

84

Frankie at age 11 years

- Referred by parents (at age 11) after a history of reading and self esteem problems
- High level of anxiety
 - he was too anxious to look closely at the words, and he would rather get the task completed and move on.
 - Frankie could not attend to the details of the sequence of letters for correct spelling, and the order of sound–symbol associations



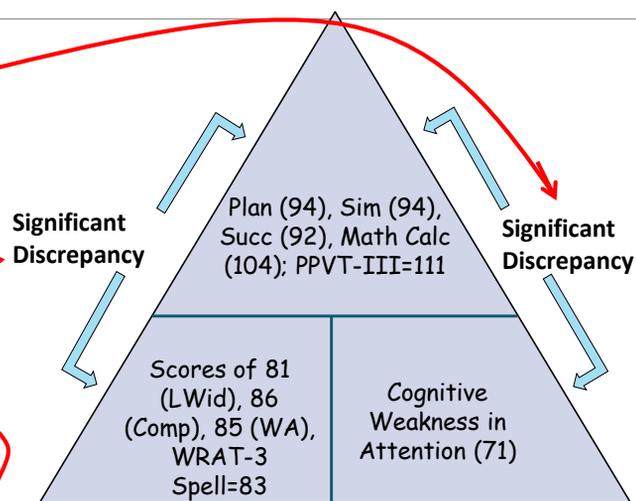
Figure 3.4. Frankie's self-portrait

85

85

Frankie: Strong Planning, Simultaneous & Successive

- **Discrepancy** between high and low processing scores
- **Discrepancy** between high processing and low achievement
- **Consistency** between low processing and low achievement



86

86

Intervention Plan for Frankie (KK & JN)

- Be **Intentional and Transparent**
 - Explain his PASS scores to him
- **Build on His Strengths**
 - Help him use his Planning, Simultaneous and Successive Strengths to support his learning challenges with Attention
- **Develop Effective Skill Sets** to remediate his weaker skills
 - Offer and encourage the use of metacognitive strategies that can improve his attention.
- **Encourage a Growth Mindset** and Self Efficacy



87

87



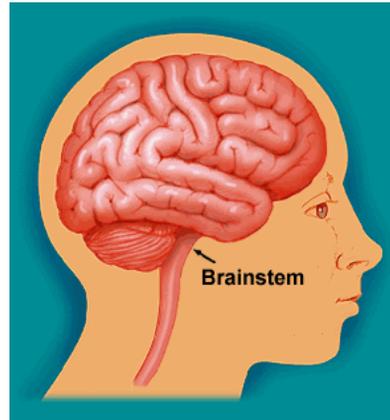
Take Away Strategies

88

PLAN to Pay Attention

Intentionally and Transparently Teach Students...

- **Focus** and know what to focus on
- Learn to **Resist** distractions
- **Sustain** attention over time



89

89

Focus: Pay Attention to the Text

- **Notice and Name** (call attention to.. `
 - Text Features
 - Text Structures
- **Read in Chunks/Stop and Chew**
 - Annotate – Text in report covers
 - Sticky notes
 - Reading logs
 - Double Entry Journals



90

90

Resist: Interacting vs. Distracting Voice

- **Interacting voice:** The voice inside the reader's head that pays attention by making connections, asking questions, identifying confusions, agreeing and disagrees with ideas.
- **Distracting voice:** The voice inside the reader's head that pulls him away from the meaning of the text. It begins a conversation with the reading but gets distracted by a connection, a question, or an idea.



91

SIT FOCUS ON YOUR BREATH

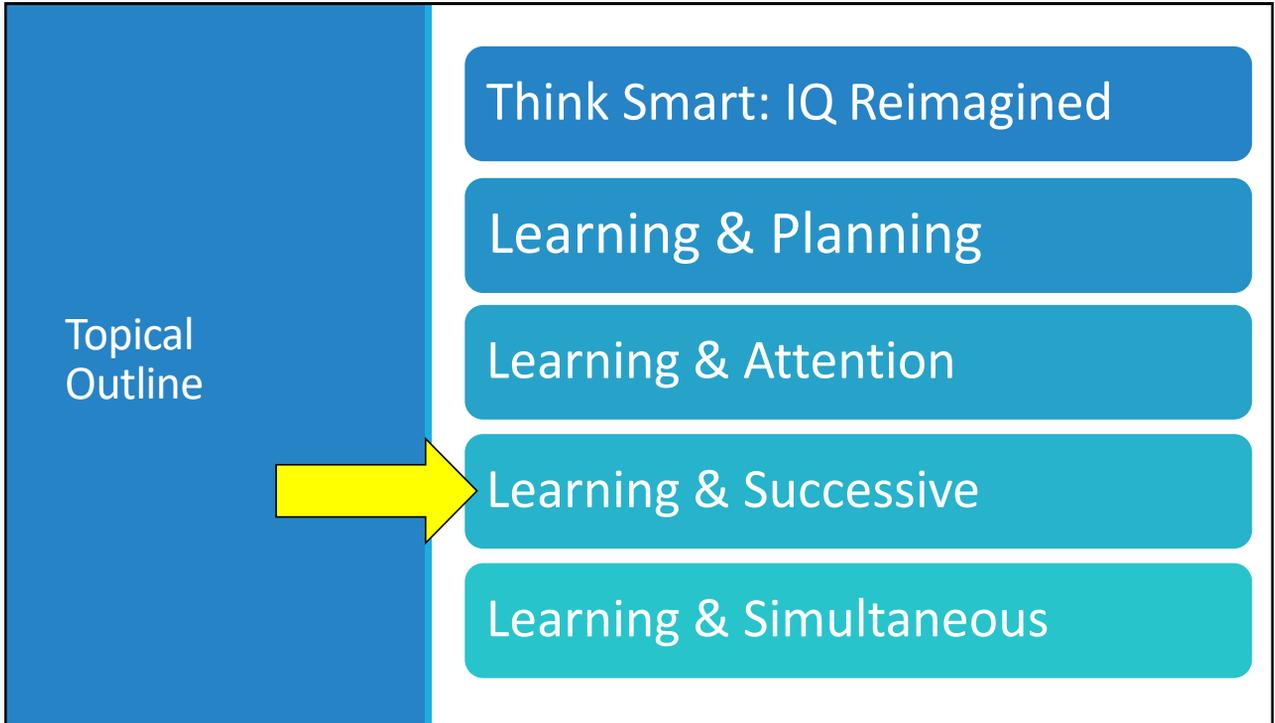


Sustain



WWW.KATHLEENKRYZA.COM

92



93

PASS: Successive

- ▶ **Successive** processing is used whenever we do something in a specific serial order
 - Anything we comprehend, speak, or do in a sequence requires successive processing

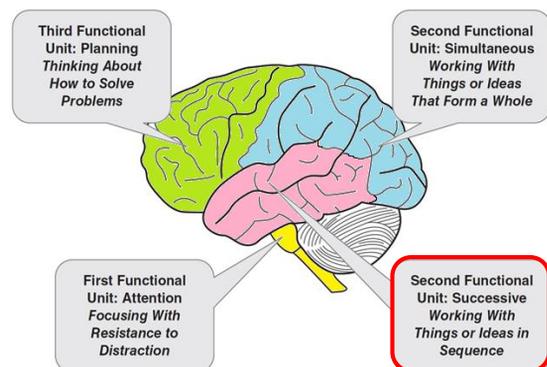


Figure 1.2 Three Functional Units and Associated Brain Structures

From: *Essentials of CAS2 Assessment*. Naglieri & Otero, 2017

94

94

Let's Take a TEST !

- First a word repetition test
- I will say some words and you need to write them in order -- AFTER I finish the saying the words.
- Next, I'll show you numbers, then take them away, and you need to write them in order

95

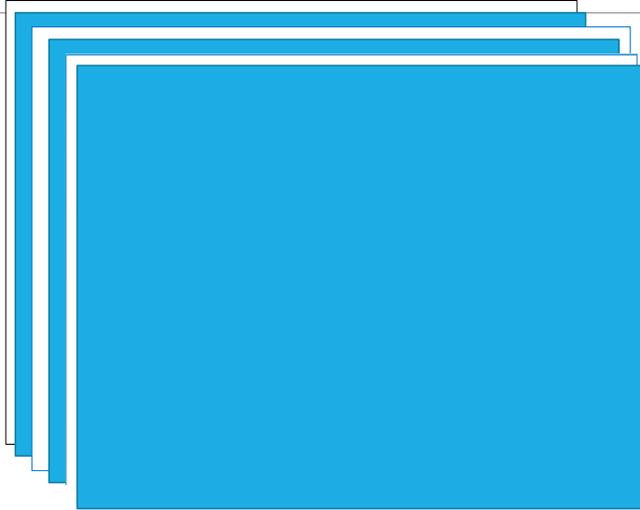
95

-
- Man Cow Key
 - Book Shoe Girl Dog Car
 - Girl Book Dog Car Wall Cow Key
Shoe

96

96

CAS2 Visual Digit Span



97

97

Insights...

- Even though tasks were different in content and modality, they required the same kind of thinking



98

98

CAS2: Rating Scale Successive

Directions for Items 31–40. These questions ask how well the child or adolescent remembers things in order. The questions ask about working with numbers, words, or ideas in a series. The questions also ask about doing things in a certain order. Please rate how well the child or adolescent works with things in a specific order.

During the past month, how often did the child or adolescent . . .

	Never	Rarely	Sometimes	Frequently	Always
31. recall a phone number after hearing it?	0	1	2	3	4
32. remember a list of words?	0	1	2	3	4
33. sound out hard words?	0	1	2	3	4
34. correctly repeat long, new words?	0	1	2	3	4
35. remember how to spell long words after seeing them once?	0	1	2	3	4
36. imitate a long sequence of sounds?	0	1	2	3	4
37. recall a summary of ideas word for word?	0	1	2	3	4
38. repeat long words easily?	0	1	2	3	4
39. repeat sentences easily, even if unsure of their meaning?	0	1	2	3	4
40. follow three to four directions given in order?	0	1	2	3	4

+ + + + =
 Successive Raw Score

99

99

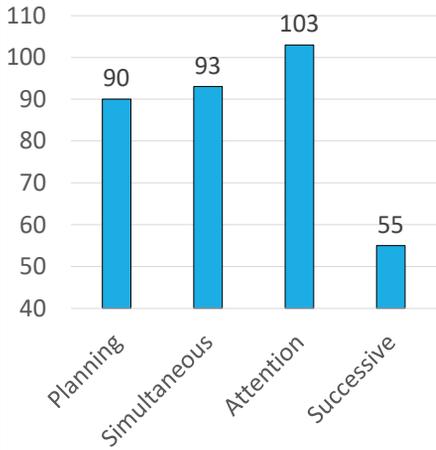
PASS Theory: Successive

- ▶ **Successive** processing is used when information is in a specific serial order
 - Decoding words
 - Letter-sound correspondence
 - Phonological tasks
 - Understanding the syntax of sentences
 - Comprehension of written instructions
 - Sequence of words, sentences, paragraphs
 - Remembering the sequence of events in a story that was read

100

100

PASS and Handwriting



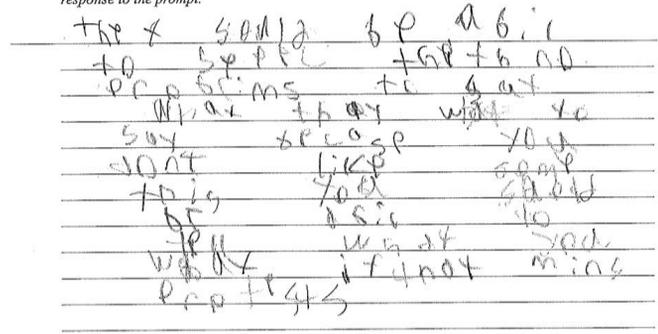
The First Amendment, 1791

“Congress shall make no law respecting an establishment of religion, or prohibiting the free exercise thereof; or abridging the freedom of speech, or of the press, of the right of the people peaceably to assemble, and the petition the government for a redress of grievances.”

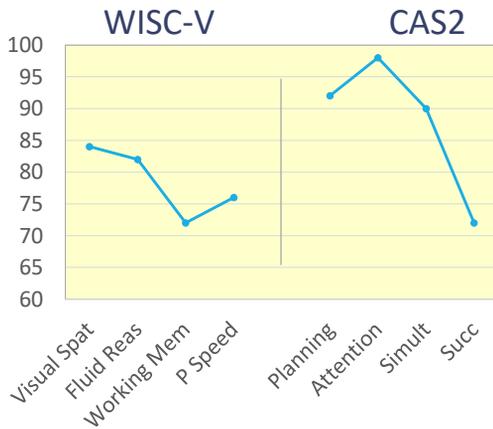
Prompt:

After reading the Case Background and the First Amendment – Do you think the school has the right to censor symbolic speech or do people have the right to use symbolic speech to protest government?

Please support your answer with cited evidence from the Case Background, and complete a 3 paragraph response to the prompt.



Jacob 6th grader



- Presenting Concerns: Reading, Math Word Problems, Anxiety
- Strengths in Planning, Attention and Simultaneous processing abilities
- Weakness in Successive processing, Reading Decoding, Pseudo Word reading,

Intervention Plan for Jacob (KK & JN)

- Be **Intentional and Transparent**
 - Explain his PASS scores to him
- **Build on His Strengths**
 - Help him use his Planning, Simultaneous Strengths to support his learning challenges with Successive
- **Develop Effective Skill Sets** to remediate his weaker skills in Successive Processing
 - Offer and encourage the use of metacognitive strategies that can improve his sequential processing.
- **Encourage a Growth Mindset** and Self Efficacy



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Take Away Strategies

105

Successive Processing and Language

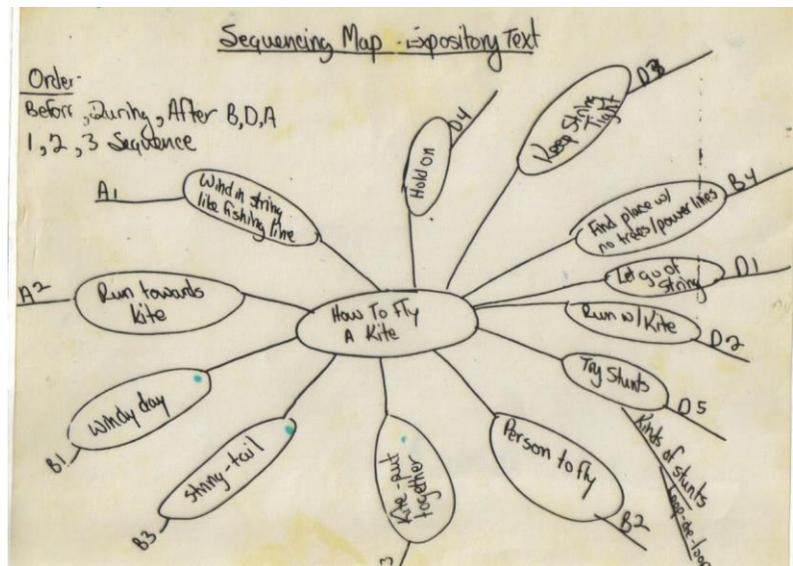
- **Work with the student to find ways of remembering sequences...**
 - **Spelling Words**
 - Segmenting Words
 - Clapping, Tapping, Moving Visualizing, etc. Which one works best...
 - **Sentence Structure**
 - Envelope Games
 - **Paragraphs and Essays**
 - Graphic organizers

106

106

Sequencing Map

Helps students organize the sequential aspect of text



107

Read this and find out how to do just that. It's easy, fun and you can learn fast.

The first thing you need to do is buy a kite. Make sure it has all the parts, especially string and a roller. Once you get the kite home you need to build it and then tie the string to the bottom of it. Wait for a windy, clear day, then call a friend to come and help. Next you go outside and find a big area with no power lines or trees. Then have your friend hold onto the kite as you hold onto the string. Next you start running until you feel the kite catch the wind. When it catches the wind tell your friend to let go. Finally, you are flying the kite. Now you can do tricks like...

108

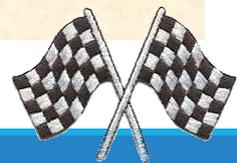


How to Make Mashed Potatoes By Chase

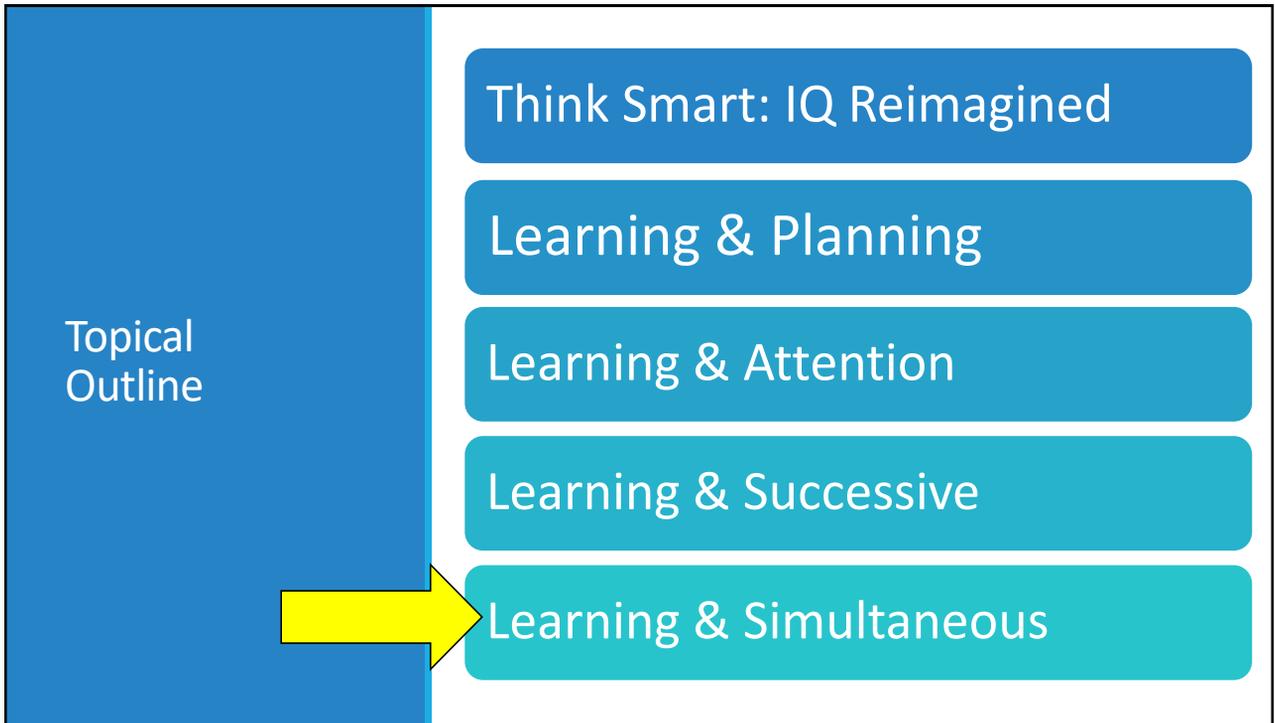
Eating mushy mashed Potatoes is my favorite thing to do. The best thing is that they are easy to make.

First you get out the potatoes. Then you peel the skin off the potatoes and put them in a pan with water. After you are done boiling the potatoes, then drain the potatoes and put them back in the pan. Now put butter and milk on them. Then you mash the potatoes. When you are done, you serve the potatoes. Then you eat them.

So go home and make your self some mashed potatoes. Follow the instructions I told you and they'll turn out just fine.



109



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PASS Theory

- **Simultaneous** processing is used to integrate stimuli into groups
 - Stimuli are seen as a whole
 - Each piece must be related to the other
 - Whole language
 - Seeing word as a whole
 - Verbal concepts
 - Geometry, math word problems

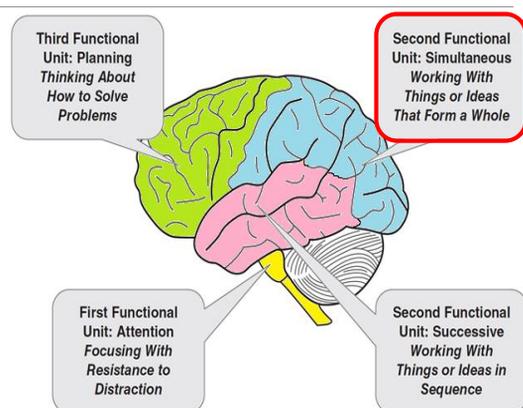


Figure 1.2 Three Functional Units and Associated Brain Structures
 From: *Essentials of CAS2 Assessment*. Naglieri & Otero, 2017

111

111

CAS2: Rating Scale Simultaneous

Directions for Items 11–20. These questions ask how well the child or adolescent sees how things go together. They also ask about working with diagrams and understanding how ideas fit together. The questions involve seeing the whole without getting lost in the parts. Please rate how well the child or adolescent visualizes things as a whole.

During the past month, how often did the child or adolescent ...

	Never	Rarely	Sometimes	Frequently	Always
11. like to draw designs?	0	1	2	3	4
12. figure out how parts of a design go together?	0	1	2	3	4
13. classify things into groups correctly?	0	1	2	3	4
14. work well with patterns and designs?	0	1	2	3	4
15. see how objects and ideas are alike?	0	1	2	3	4
16. work well with physical objects?	0	1	2	3	4
17. like to use visual materials?	0	1	2	3	4
18. see the links among several things?	0	1	2	3	4
19. show interest in complex shapes and patterns?	0	1	2	3	4
20. recognize faces easily?	0	1	2	3	4

— + — + — + — + — =

Simultaneous Raw Score

CAS2 Matrices

1 2 3 4 5

1 2 3

4 5 6

Which picture shows a boy behind a girl?

Test Yourself !

Solve these analogies:

Girl is woman as boy is to _____?

C⁷ is to F as E⁷ is to _____?

2 is to 4 as 3 is to _____?

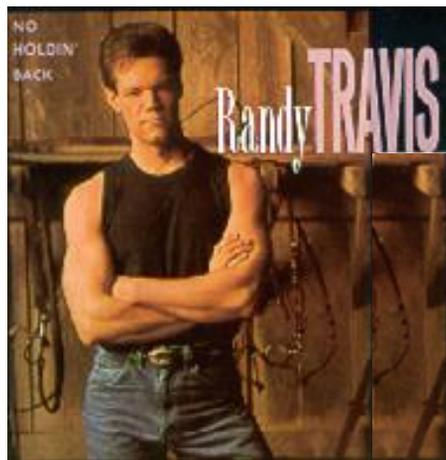
114

114

Simultaneous Verbal Task

- Simultaneous processing using verbal content
- Who is this song about?

My momma's daddy was his oldest son.

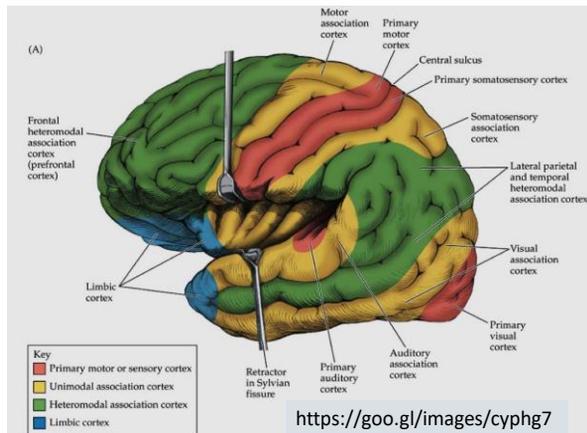


115

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Heteromodal Association Cortex (Goldberg, 2006)

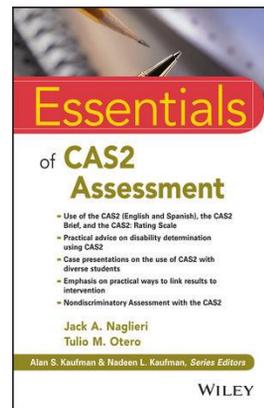
- Our brains merge stimuli coming in from the senses into one stream of information
- This calls into question the common practice of learning strategies defined by modality



116

Case of Nelson (Naglieri & Feifer, 2017, Intervention Chapter 5)

- Nelson (9 year-old 4th grader)
 - difficulty with spelling and written language math facts, and inconsistent with reading comprehending skills.
 - difficulty keeping pace with his peers and often failed to complete his work in a timely manner.
 - The Child Development Team (CDT) recommended a comprehensive psychological evaluation.



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Case of Nelson (Naglieri & Feifer, 2017)

- Nelson's history of reading problems were connected to his challenges with **Simultaneous processing**

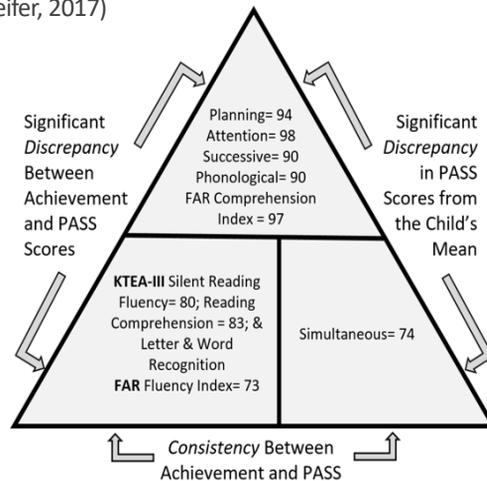


Figure 5.5 Nelson's Discrepancy/Consistency Method of SLD Results

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Kathleen's Intervention Plan for Nelson

- Be **Intentional and Transparent**
 - Explain his PASS scores to him
- **Build on His Strengths**
 - Help him use his Planning, Attention, and Successive Strengths to support his learning challenges with Simultaneous Processing
- **Develop Effective Skill Sets** to remediate his weaker skills
 - Offer and encourage the use of metacognitive strategies that can improve his Simultaneous Processing Skills
- **Encourage a Growth Mindset** and Self Efficacy

119

119

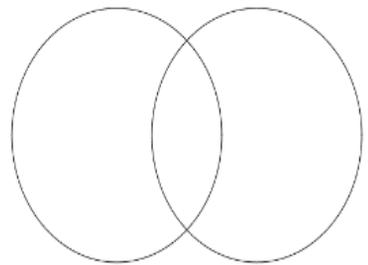


Take Away Strategies

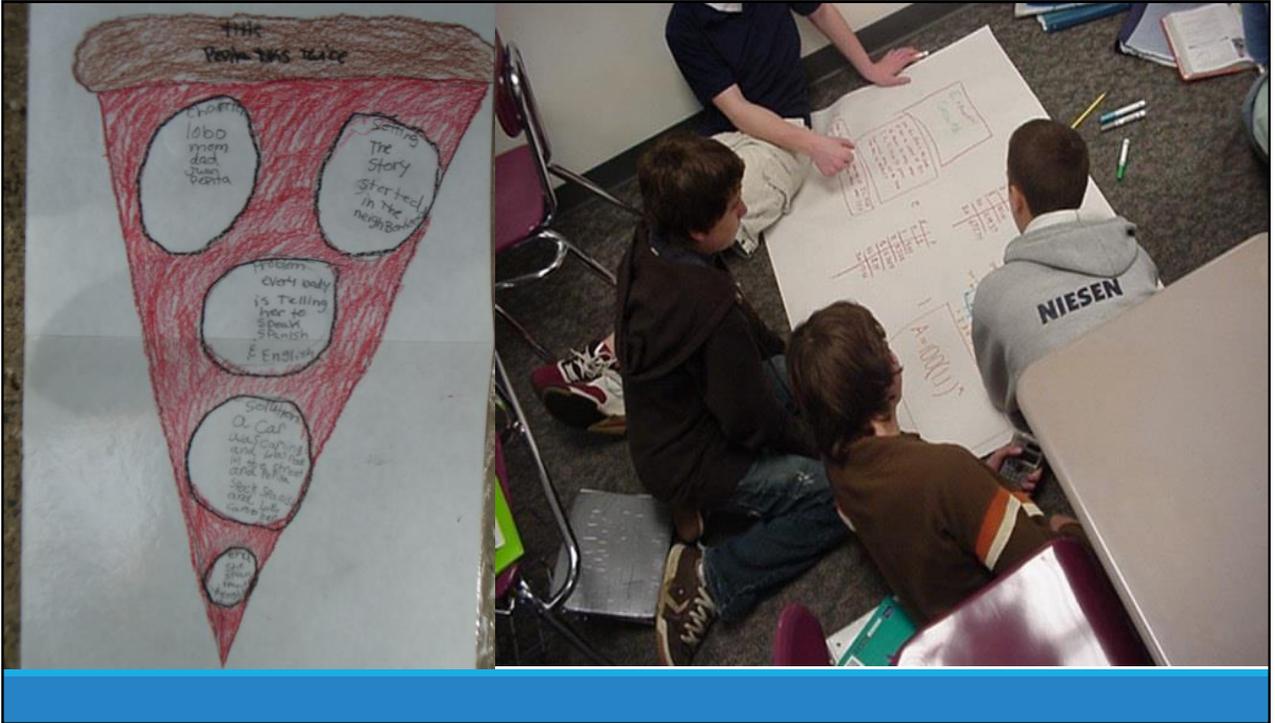
120

Use Graphic Organizers to See the BIG PICTURE

- Model and scaffold instruction of graphic organizers and explain WHY they work?
- What is MOST important is that students know what kind of thinking they are doing – compare/contrast, word exploration, etc.
- Graphic organizers are more powerful if they are students created and BIG and ALIVE!
- Students can use their planning skills to choose how they organize their thoughts.



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122

Who's Teaching Summarization?

- What skills does it take to be able to summarize?
- How can you make summarization more concrete for your students?
- **Headlines**
- **Twitter/The Gist of It**



123

PASS Empowers Children in NZ



124

I don't give up **I enjoy school** **I am respectful**
I am polite **I always do what the teacher tells me** **I am good at sharing my iPad**
I am caring **I am a learner**
I am intuitive **Jessie** **I am kind**
I am helpful at home and school **I am a caring friend** **I am creative**
I am funny **I am happy** **I am intelligent**
I am clever **I am good at my times tables, adding and subtracting** **I am willing to try new things**
I am organised **I take pride in my work**
I am thoughtful

125

Jessie's Strengths and Challenges



126

My Challenges with Attention

- I find it hard to keep my attention on one thing.
- I find it hard to ignore sounds and things around me.
- I forget what I am thinking.
- If there is sound or movement I get easily distracted.
- If I get distracted I can't focus on what someone is saying. I don't hear it anymore.
- Sometimes this means I don't hear the instructions.
- Sometimes I forget what I am going to say.
- It makes it hard to get my work done.
- If someone uses a word I don't understand I focus on the word and don't hear the rest of what they are saying.
- It makes me frustrated and sad.

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Things that help with Attention

Sitting somewhere away from windows and doors. Sitting at the front of the room near the teacher.

Working in the common room.

Giving directions so Jessie can see AND hear them.

Check understanding and memorising of instructions by encouraging Jessie to repeat the directions given and explain the meaning of these directions.

128

Things that help with Attention

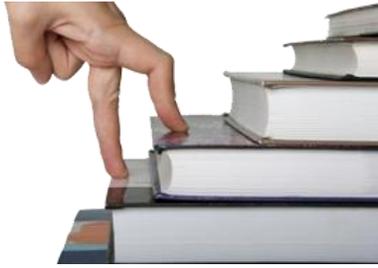
“It helps if I am doing”- Use concrete materials to support learning concepts.

Check Comprehension: Watch for signs of inattention, decreased concentration or understanding. Instructions may need to be repeated and/or simplified.

Make sure the work is given in chunks of achievable pieces.

Give Jessie short breaks in between tasks which require sustained attention.

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- The more we understand the **BIG PICTURE** of how the brain works, the more we can take the intentional **STEPS** we need to help our students **PAY ATTENTION** to what they want and **PLAN to SUCCEED**, as life-long thinkers and learners.
- So now, maybe it's time...

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Maybe It's Time to Let the Old Ways Die...



Remember to **Think Positive** (*focus on strengths*) and **Act Smart** (*Develop an Intentional and Transparent Plan*).



**WE CAN DO
BETTER**

131

It's been an honour and a pleasure!



Jack A. Naglieri
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Kathleen Kryza
www.kathleenkryza.com